

Application No.: 10/620,865

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Docket No.: 245402006600
Client Reference No.: 903127-01(TaM/kh)**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-10 (cancelled)

Claim 11 (currently amended): A nitride semiconductor laser apparatus comprising a nitride semiconductor laser device chip, a support member for placing said chip thereon, and a solder for joining said laser device chip to said support member, wherein:

 said chip has a nitride semiconductor stacked-layered structure of a hexagonal crystal system including an n-type layer, an active layer and a p-type layer successively stacked on a first main surface of a nitride semiconductor substrate of the same hexagonal crystal system and has a ridge stripe structure formed in a portion of said p-type layer;

 said chip has a length L1 of more than 500 μm in a longitudinal direction of said stripe structure and a length L2 of more than 200 μm and less than 300 μm in a width direction of said stripe structure, and L1/L2 is more than 2.5;

 a total thickness of said nitride semiconductor substrate and said nitride semiconductor stacked-layered structure is more than 50 μm and less than 200 μm ;

 a multilayer metal film including an outermost layer of Au is formed on said nitride semiconductor laser device chip;

 said outermost layer of Au is bonded to said support member with said solder; and

 said solder includes one of AuSn, AgSn, AuGe, PbSn, InSn, and AgCuSn.

Claim 12 (previously presented): The nitride semiconductor laser apparatus of claim 11, wherein said stripe structure is formed at a position more than 10 μm away in the width direction of said stripe structure from an edge of said chip.

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Claim 13 (previously presented): The nitride semiconductor laser apparatus of claim 11, wherein said support member has a larger thermal expansion coefficient as compared to said nitride semiconductor substrate.

Claim 14 (previously presented): The nitride semiconductor laser apparatus of claim 11, wherein said support member includes one of Al, Ag, Cu, Au, Fe, Al-SiC, CuW and BeO.

Claim 15 (cancelled)

Claim 16 (previously presented): The nitride semiconductor laser apparatus of claim 11, wherein:

a multilayer metal film including an outermost layer of Au is formed on a second main surface of the nitride semiconductor substrate opposite said first main surface; and
said outermost layer of Au is connected to said support member by said solder.

Claim 17 (previously presented): The nitride semiconductor laser apparatus of claim 11, wherein:

a multilayer metal film including an outermost layer of Au is formed on said nitride semiconductor stacked-layer structure; and
said outermost layer of Au is connected to said support member by said solder.

Claim 18 (new): The nitride semiconductor laser apparatus of claim 11, wherein said chip has a first pair of side surfaces parallel to and a second pair of side surfaces perpendicular to the longitudinal direction of said stripe structure, only said second pair of side surfaces being formed by cleavage.

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